

REMARKS

In the present Amendment, Claims 25 and 29 have been amended to recite that the light-emitting layer consists essentially of ... to obtain the white light emission.

Claims 30-32 have been amended to change their dependency.

Claims 1-24 were previously canceled.

No new matter has been added and entry of the Amendment is respectfully requested.

Upon entry of the Amendment, Claims 25-32 will be all the claims pending in the application.

I. Response to Rejection under 37 C.F.R. § 103

Claims 25-32 have been rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Baldo et al. in *Appl. Phys. Lett.* 75(1), pp.4-6 (July 5, 1999) or Forrest et al. (US 6,310, 360 B1), either reference in view of Egusa et al. (US 5,294,810).

Applicant respectfully submits that the present claims as amended are patentable over the cited references for the reasons of records and the following additional reasons.

According to the Examiner, Baldo et al. and Forrest et al. disclose devices comprising more than one light-emitting material, each of the materials capable of emitting light of a different color, wherein one of the materials is an orthometallated complex. In particular, in Baldo et al's device, a single light-emitting layer contains green and blue light-emitting materials. In Forrest et al's device of Example 1, green and blue-light emitting materials are contained in one light-emitting layer while red and blue-light emitting materials are contained in a second light-emitting layer.

Egusa et al. is relied upon as disclosing a light-emitting device comprising more than one light-emitting layer wherein different light-emitting materials may be mixed in a light-emitting layer in order to control light-emission wavelength and the mixture may include a phosphorescent material. Further, Egusa et al. is relied upon as teaching that it is possible to achieve emission of white light from a device comprising multiple light-emitting layers and from a device comprising a mixture of light-emitting materials.

Baldo et al. disclose a luminescent layer containing Ir(ppy)₃ (a green-light emitting material) with CBP (a blue-light emitting material) in the same layer. As noted by the Examiner, Baldo et al. do not disclose using red, green and blue light-emitting materials all in the same layer or in their respective layers. Further, Baldo et al. describe that blue emission from CBP is negligible as to achieve efficient energy transfer. That is, CBP is not a blue light-emitting material in the Baldo et al. device. Therefore, even if, *arguendo*, one of ordinary skill in the art might be motivated to add a red light-emitting material in the Baldo et al. device which in fact emits green light only (see Figure 4) as suggested by the Examiner, the modified device still would not emit white light.

On the other hand, the present invention requires that the light-emitting layer consists essentially of red, green, and blue light-emitting materials in same light-emitting layer or in their respective layers, to obtain the white light emission.

Moreover, neither Baldo et al. nor Egusa et al. disclose or suggest that two or all of the light-emitting materials contained in a light-emitting device are orthometallated complexes.

Turing to Forrest et al., Forrest et al. disclose different luminescent layers containing either Ir(ppy)₃ complexed with CBP or DCM2 (a red-light emitting material) with CBP in different layers. As noted by the Examiner, Forrest et al. do not disclose using red, green and blue light-emitting materials in the same layer or different layers. In Forrest et al., Ir(ppy)₃ acts as a phosphorescent sensitizer/ISC agent and is not used as a green light-emission material. Therefore, even if, *arguendo*, one of ordinary skill in the art might be motivated to add other light-emitting materials in the Forrest et al. device as suggested by the Examiner, the modified device still would not result in the present invention which requires that at least one of the light-emitting materials is an orthometallated complex and that the light-emitting materials in the light-emitting layer(s) obtain a white light emission.

In view of the foregoing, Applicant respectfully submits that the present claims are not obvious over the cited references, and thus the rejection should be withdrawn.

II. Response to Decision on Appeal

In the Decision on Appeal mailed July 28, 2006, the Board notes that present claim 25 does not require that the red, green and blue light-emitting materials each contribute to the white light emission, but merely requires the presence of materials which can be properly described as red, green and blue light-emitting materials (page 5, lines 5-7 of the Decision). Also, the Board indicates that present claim 25 does not exclude the addition of other light-emitting materials.

In response, Applicant has in the present Amendment, amended independent claims 25 and 29 to recite that the light-emitting materials in the light-emitting layer(s) obtain a white light

emission. That is, each of the red, green and blue light-emitting materials contributes to the white light emission. Further, Applicant has amended claims 25 and 29 to use the transition phrase "consisting essentially of," for the light emitting layer(s) in the present invention.

III. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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